

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Patent Application Of: Kovacic

File No: 115-01 US Div(2)

Serial No: New Filing

Art Unit: New Filing

Filed: New Filing

Examiner: New Filing

Title: Method of Producing a SI-GE Base Heterojunction Bipolar Device

November 20, 2001

The Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Dear Sir:

**Preliminary Amendment**

Please enter the following preliminary amendment to the application:

**Replacement Specification**

Please delete the specification, claims and abstract currently on file and replace with new specification, claims and abstract, pages 1 through 20, as submitted in Attachment A.

**In the Claims**

Please delete claims 1 through 9 and 17 through 21 currently on file. Please add new claims 22 through 32, as submitted in Attachment B.

**Attachment A** is a replacement specification, claims, and abstract.

**Attachment B** is a clean copy of the amendment.

**Attachment C** is a marked up copy of the amendment.

## REMARKS

To facilitate the examination process, a replacement specification, claims and abstract is provided as Attachment A. No new matter has been added. This document is identical to the parent application number 09/492,463 filed January 27, 2000.

Claims 1 through 9 and 17 through 21 have been deleted. Claims 10 through 16 remain in the application. New claims 22 through 32 have been added. No new matter has been added.

We request a statement be added at the beginning of the specification to claim domestic priority under 35 USC 120 and in accordance with 37 CFR 1.78. A clean copy of the new paragraph and a marked up copy of the new paragraph is attached in Attachment B and Attachment C.

Applicant looks forward to receiving the first Official Action from the Examiner in due course.

Respectfully submitted,



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**ATTACHMENT A**  
*Replacement specification, claims and abstract*

TO THE SECRETARY

## **ATTACHMENT B**

### *Clean Copy of the Replacement Paragraph and Claims*

*A clean copy of the replacement paragraph and claims is provided as follows:*

*Paragraph 000*

*Claims 22 through 32*

#### **After the Title**

*Page 1, please insert new paragraph 000 directly after the title:*

[000] This application is a divisional application of United States Patent Application No. 09/492,463 filed January 27, 2000.

#### **New Claims**

22. A semiconductor device according to claim 10, comprising an insulating layer between the two layers of polysilicon.
23. A semiconductor device according to claim 22, wherein the insulating layer is formed by reacting the first layer of polysilicon with a substance to form an insulating cover thereon.
24. A semiconductor device according to claim 22, wherein the insulating layer is formed by depositing an insulating material thereon.
25. A semiconductor device as defined in claim 10, wherein the SiGe layer has a substantially uniform thickness.
26. A semiconductor device as defined in claim 10, wherein the thickness of the SiGe layer covered by the second layer of polysilicon is of a substantially a same thickness and impurity concentration as the remaining portion of the layer of SiGe covering at least a region of the silicon layer.
27. A semiconductor device according to claim 13, comprising an insulating layer between the two layers of polysilicon.

28. A semiconductor device according to claim 27, wherein the insulating layer is formed by reacting the first layer of polysilicon with a substance to form an insulating cover thereon.

29. A semiconductor device according to claim 27, wherein the insulating layer is formed by depositing an insulating material thereon.

30. A semiconductor device as defined in claim 10, wherein the SiGe layer has a controllable thickness profile within predetermined limits, the controllable thickness profile for providing substantially reproducible results for the thickness of the SiGe layer.

31. A semiconductor device as defined in claim 30, wherein the controllable thickness profile provides substantially reproducible electrical characteristics of the SiGe layer.

32. A semiconductor device as defined in claim 31, wherein the controllable thickness profile of the SiGe layer is other than a uniformly thick layer.

## ATTACHMENT C

### *Marked Up of the Replacement Paragraph and Claims*

*A marked up copy of the replacement paragraph and claims is provided as follows:*

*Paragraph 000*

*Claims 22 through 32*

#### **After the Title**

*Page 1, please insert new paragraph 000 directly after the title:*

[000] This application is a divisional application of United States Patent Application No. 09/492,463 filed January 27, 2000.

#### **New Claims**

22. A semiconductor device according to claim 10, comprising an insulating layer between the two layers of polysilicon.
23. A semiconductor device according to claim 22, wherein the insulating layer is formed by reacting the first layer of polysilicon with a substance to form an insulating cover thereon.
24. A semiconductor device according to claim 22, wherein the insulating layer is formed by depositing an insulating material thereon.
25. A semiconductor device as defined in claim 10, wherein the SiGe layer has a substantially uniform thickness.
26. A semiconductor device as defined in claim 10, wherein the thickness of the SiGe layer covered by the second layer of polysilicon is of a substantially a same thickness and impurity concentration as the remaining portion of the layer of SiGe covering at least a region of the silicon layer.
27. A semiconductor device according to claim 13, comprising an insulating layer between the two layers of polysilicon.

28. A semiconductor device according to claim 27, wherein the insulating layer is formed by reacting the first layer of polysilicon with a substance to form an insulating cover thereon.

29. A semiconductor device according to claim 27, wherein the insulating layer is formed by depositing an insulating material thereon.

30. A semiconductor device as defined in claim 10, wherein the SiGe layer has a controllable thickness profile within predetermined limits, the controllable thickness profile for providing substantially reproducible results for the thickness of the SiGe layer.

31. A semiconductor device as defined in claim 30, wherein the controllable thickness profile provides substantially reproducible electrical characteristics of the SiGe layer.

32. A semiconductor device as defined in claim 31, wherein the controllable thickness profile of the SiGe layer is other than a uniformly thick layer.